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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,673	01/06/2006	Atsushi Tanno	OGW-0414	1777
7590 Patrick G. Burns Greer, Burns & Crain, Ltd. Suite 2500 300 South Wacker Drive Chicago, IL 60606			EXAMINER FISCHER, JUSTIN R	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 11/27/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/563,673

Applicant(s)

TANNO, ATSUSHI

Examiner

Justin R. Fischer

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11, 12 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 5, 10 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 010606.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Dobson (GB 2146959). As best depicted in Figures 1 and 2, Dobson is directed to a pneumatic tire construction comprising a "belt-shaped sound absorbing member" or open cell foam 6 and an "elastic fixing band" or rubber cover strip 7 (Page 1, Lines 19-30). Lastly, said member is continuously arranged over the circumferential extent of the tire and thus is seen to satisfy the language of the claimed invention (member has contour of inner surface in the widthwise direction and longitudinal/circumferential direction).

3. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Yukawa (EP 1253025). Yukawa discloses a pneumatic tire construction including a noise dampening assembly 5 (sound absorbing member), wherein said assembly is adhesively bonded to the tire inner side (Paragraph 19). In this instance, the claims do not distinguish the adhesive layer of Yukawa from the claimed "elastic fixing band". Lastly, said member is continuously arranged over the circumferential extent of the tire and thus is seen to satisfy the language of the claimed invention (member has contour of inner surface in the widthwise direction and longitudinal/circumferential direction)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson (GB 2146959). As best depicted in Figures 1 and 2, Dobson is directed to a pneumatic tire construction comprising a "belt-shaped sound absorbing member" or open cell foam 6 and an "elastic fixing band" or rubber cover strip 7 (Page 1, Lines 19-30). The reference further teaches that the member/band assembly is disposed inwardly of said supporting structure in the "crown region of the tire" (Page 1, Lines 42-48). Based on this disclosure and Figures 1 and 2, one of ordinary skill in the art at the time of the invention would have found it obvious to form the member with a width between 0.40 and 0.90 times the maximum width of the tire. Lastly, in regards to the thickness of said member, Dobson teaches that the open cells of the foam have an average diameter between 1.3 and 6 mm (Page 1, Lines 45-55)- in view of this disclosure, one of ordinary skill in the art at the time of the invention would have found it obvious to form the member with a thickness between 5 and 50 mm. Additionally, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed values.

With respect to claim 2, said member is continuously arranged over the circumferential extent of the tire and thus is seen to satisfy the language of the claimed invention.

Regarding claim 3, one of ordinary skill in the art at the time of the invention would have expected the respective members to have extremely similar radii of curvatures and well within the broad range of the claimed invention. It is emphasized that the tread and said member are only separated by the crown reinforcement structure and generally have the same contour.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson. As detailed above, Dobson substantially teaches the claimed tire construction. In regards to the curvature of the member and the tread, one of ordinary skill in the art at the time of the invention would have expected the respective members to have extremely similar radii of curvatures and well within the broad range of the claimed invention. It is emphasized that the tread and said member are only separated by the crown reinforcement structure and generally have the same contour.

7. Claims 1-4, 6-9, 11, 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yukawa (EP 1253025). Yukawa discloses a pneumatic tire construction including a noise dampening assembly 5 (sound absorbing member), wherein said assembly is adhesively bonded to the tire inner side (Paragraph 19). In this instance, the claims do not distinguish the adhesive layer of Yukawa from the claimed "elastic fixing band". The reference further teaches that the sound absorbing member (a) has a thickness between 3.0 mm and 0.80 times the section height of the

cavity and (b) has a width between 20 mm and a width greater than the tread width by 40 mm (Paragraph 23). It is evident that each of the ranges substantially overlaps the broad ranges of the claimed invention- one of ordinary skill in the art at the time of the invention would have found it obvious to select the width and thickness such that each parameter satisfies the claimed invention absent any conclusive showing of unexpected results.

Lastly, with respect to the independent claims, the adhesive layer of Yukawa is seen to satisfy the claimed invention. In the event that such an applied adhesive does not satisfy the claimed invention, it is well known to form such adhesive layers as preforms or tapes (as opposed to be being applied or coated in liquid form) which can be viewed as elastic fixing bands. It is suggested that applicant amend the claims to structurally define the elastic fixing band and distinguish it from the adhesive layer of Yukawa.

Regarding claim 2, said member is arranged over the circumferential extent of the tire and thus has a contour that satisfies the claimed invention.

With respect to claims 3 and 8, said member can have a relatively small thickness and thus have an inner end that is positioned relatively close to the crown/region. Given such a structure, one of ordinary skill in the art at the time of the invention would have expected the respective radii of curvature to be similar and well within the broad range of the claimed invention.

As to claims 4, 9, and 12, Figures 15 and 16 depict the inclusion of notches 20, 22c that extend widthwisely and are disposed at intervals over the circumferential extent

of the tire. Additionally, Figures 3-8 depict a plurality of embodiments having "notches" extend in the widthwise direction.

Regarding claims 6, 11, and 14, the notches of Yukawa have a depth h_2 of at least 5 mm, and more preferably at least 10 mm (Paragraph). Based on this disclosure, one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Yukawa in accordance to the broad range of the claimed invention (between 0.20 and 0.90 times the thickness). As to the intervals, h_3 appears to define the distance between intervals and several examples listed in Table 1 fall within the broad range of 10 to 80 mm.

With respect to claim 15, the sound absorbing member of Yukawa is formed with an uneven face in order to effectively attenuate the sound waves. The reference further teaches that the height of said uneven face is at least 5 mm, which satisfies the broad range of the claimed invention less than 20 mm.

8. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson as applied in claim 1 above and further in view of Nishino (JP 2000314453). Dobson substantially teaches the claimed tire construction, including an elastic fixing band having a thickness between 0.3 and 2.5 mm. In describing said band, Dobson suggests the use of various rubbers and further teaches that the selection of rubbers is not considered critical (Page 2, Lines 1-15). While Dobson fails to expressly disclose the use of a synthetic resin, such materials and rubbers (synthetic and natural) are extensively used as alternatives in the tire industry, as shown for example by Nishino. It is particularly noted that the relevant layer is extremely

analogous in that it covers an additional member or object that is attached to the tire. Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to form the elastic band from a synthetic rubber or a synthetic resin. Lastly, the width of said band is a function of the specific tire being manufactured and one of ordinary skill in the art at the time of the invention would have found it obvious to form a band with a wide variety of widths, including those between 10 and 30 mm. Additionally, applicant has not provided a conclusive showing of unexpected results to establish a criticality of the claimed values.

Regarding claim 17, one of ordinary skill in the art at the time of the invention would have found it obvious to use a wide variety of known synthetic resins, including polypropylene having the claimed mechanical properties. Furthermore, applicant has not provided a conclusive showing of unexpected results to establish a criticality of the claimed values. It is emphasized that the disclosed values are consistent with common polypropylene materials used in a wide variety of industries.

Allowable Subject Matter

9. Claims 5, 10, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Justin R Fischer
Primary Examiner
Art Unit 1791

JRF
November 25, 2007